What is claimed is:

1. A method for detecting a defect on an object having projected portions formed in the same shape along an arc with a predetermined pitch, comprising the steps of:

determining an arc circumscribing a tip of each projected portion of an object to be inspected,

extracting each overlapping region formed by an overlapping portion between an inner portion of a region defined by said arc and a cut-away portion of said object to determine an area of each overlapping region,

comparing the area of each of said overlapping regions with each other, and

determining that no defect exists on said object if each area difference falls within a range of predetermined criteria, whereas determining that a defect exists on said object if said area difference exceeds the range of the predetermined criteria.

2. A system for detecting a defect on an object having projected portions formed in the same shape along an arc with a predetermined pitch, comprising

imaging means for imaging an object to be inspected,

image capture means for holding an picked-up image as digital data,

region area detection means for analyzing the digital data held by said image capture means to determine an arc

circumscribing a tip of each of the projected portion of said object, and then extracting each overlapping region formed by an overlapping portion between an inner portion of a region defined by said arc and a cut-away portion of said object to determine an area of each overlapping region,

region area comparison means for comparing the area of each overlapping region determined by said region area detection means with each other to determine an area difference , and

defect determination means for determining that no defect exists on said object if the area difference determined by said region area comparison means falls within a range of predetermined criteria, whereas determining that a defect exists on said object if said area difference exceeds the range of the predetermined criteria.

3. A method for detecting a defect on an object having projected portions formed in the same shape along an arc with a predetermined pitch, comprising the steps of:

determining an arc inscribing a tip of each projected portion of an object to be inspected,

extracting each overlapping region formed by an overlapping portion between an outer portion of a region defined by said arc and a cut-away portion of said object to determine an area of each overlapping region,

comparing the area of each of said overlapping regions

with each other, and

determining that no defect exists on said object if each area difference falls within a range of predetermined criteria, whereas determining that a defect exists on said object if said area difference exceeds the range of the predetermined criteria.

4. A system for detecting a defect on an object having projected portions formed in the same shape along an arc with a predetermined pitch, comprising

imaging means for imaging an object to be inspected,

image capture means for holding an picked-up image as digital data,

region area detection means for analyzing the digital data held by said image capture means to determine an arc inscribing a tip of each of the projected portion of said object, and then extracting each overlapping region formed by an overlapping portion between an outer portion of a region defined by said arc and a cut-away portion of said object to determine an area of each overlapping region,

region area comparison means for comparing the area of each overlapping region determined by said region area detection means with each other to determine an area difference, and

defect determination means for determining that no defect exists on said object if the area difference

determined by said region area comparison means falls within a range of predetermined criteria, whereas determining that a defect exists on said object if said area difference exceeds the range of the predetermined criteria.

5. The system for detecting a defect on an object having projected portions formed in the same shape along an arc with a predetermined pitch, according to claim 2 or 4, further comprising a lighting box for placing the inspected object thereon, said imaging means being arranged opposite to an illuminating surface of the lighting box.

6. The system for detecting a defect on an object having projected portions formed in the same shape along an arc with a predetermined pitch, according to claim 5, wherein said imaging means is provided with a band pass filter for eliminating, as deleterious light, light having wavelengths other than those of light for said lighting box to illuminate the object with.